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*Firing Device,
A.C. Delay*

22 May 1959

MEMORANDUM FOR THE RECORD

SUBJECT: Firing Device, A. C. Delay

1. The following are surveillance tests and results reported by the Office of Logistics [] in January 1959.

0515-H00-0017 Firing Device, AC Delay, w/o M34 Detonator.
Pkd: 1/mtl can, 50 cans/wdn bx.

24 Jan 59 8 devices removed from 2 bxs and the fol delay ampoules assembled for test: Nr 1 (red, 3-hr delay); Nr 2 (orange, 7-hr delay); Nr 3 (yellow, 15-hr delay); Nr 4 (green, 20-hr delay); Nr 5 (violet, 100-hr delay); Nr 6 (black, 30 day delay); Nr 7 (clear, 50-day delay); Nr 8 (gold, 60-day delay). An incendiary head (0510-H00-1597) was assembled to Samples #1 and #2, three hr & seven hr delays. Nr 1 & Nr 2 placed behind barricade & ampoules crushed in a/o w/instructions, except temperatures were between 50 & 60 degrees F. & should have been 77 degrees F. Nr 1 functioned properly 6 hrs 10 min after crushing ampoule. Nr 2 functioned properly but exact time of functioning is unknown as device was left unattended. However, a check was made 42 hrs after crushing ampoule & device had functioned. A check was made on Nrs 3-8, forty-three hrs after crushing ampoule & Nrs 3 & 4 had functioned properly. Nr 6 functioned 61 days 20½ hrs; Nr 7 functioned 82 days 18½ hrs. It is believed that if proper temperature of 77 degrees F. could have been maintained that devices would have functioned w/in specified time limit.

1370-H00-1597 Inc Head for the Firing Device Kit, AC Delay
Pkd 1/hermetically sealed can, 100 cans (100 heads) egg crated/wdn bx.

24 Jan 59 Two inc heads selected from 1 bx for function test in a/c w/special instructions. Heads assembled to two AC delays (FSN 0515-H00-0017) & a red ampoule (3 hr delay) assembled to Nr 1 and an orange (7 hr delay) assembled to Nr 2. AC delays were initiated in a/c w/instructions and Nr 1 functioned 6 hrs & 10 min after crushing ampoule & inc head ignited immediately upon being hit w/striker. Head burned very brightly w/intense heat for 4 to 6 min & began diminishing & was completely expended in 10 min. Nr 2 functioned and burned but time of firing and burning time is not known as this device was left unattended. However, 42 hrs after

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ampoule was crushed, a check was made & head had functioned & completely burned. It is believed that heads functioned properly and are suitable for intended purpose.

1375-H00-1932 Firing Device Kit, AC Delay, consisting of: 1 ea Firing Device Body, 1 ea Delay Ampules, 3 hr, red; 7 hr, orange; 15 hr, yellow; 20 hr, green; 100 hr, violet; 30 day, black; 50 day, clear; 60 day, gold; 1 ea Detonator M34, 1 ea wrench, 1 tube wtrprfing compound; 1 ea temperature correction table. PKD 1 Kit per mtl can, 50 cans per case.

24 Jan 59 Two devices w/detonators removed from 2 bxs, detonators assembled and a red (3-hr delay) ampule assembled to one device & an orange ampule (7 hr delay) assembled to other device. Devices placed behind barricade & activated in a/c w/instructions, except temperature ranged from approx. 50 to 60 degrees F. & should have been 77 degrees F. One device (3 hr delay) functioned high order, & properly 7 hrs after crushing ampule. Number two (7 hr delay) functioned properly but due to device being left unattended, the actual time of functioning is unknown. However, a check was made 42 hrs after crushing ampule & the device had functioned. This test was necessary due to a rushed shipment & as far as is known devices would have functioned properly under normal weather conditions.



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